

REMARKS

Rejections under 35 USC §103

The Examiner rejected Claims 1-2, and 6 as being obvious over Pan in view of 9-75480. According to the Examiner, Pan discloses an antimicrobial grip comprising an elastomer with an inorganic antimicrobial agent (tin) bonded to a textile layer, but fails to teach an elongated strip or a polyurethane elastomer. The Examiner suggests that the deficiencies in Pan can be cured by the teaching of 9-75480, which purportedly discloses an elongated strip and a resin film of foamed polyurethane on a side of fabric containing an antimicrobial.

Applicant respectfully disagrees. First, Pan describes a problem to be solved (i.e., “mildewing situation and bacterial reproduction” on conventional rubber grips; ¶0004) and suggests the following solution (Summary of the Invention), albeit in a very confusing manner:

“...based on the experience and knowledge cumulated from engaging in related fields for many years, after continuous researches and experiments, finally culminated a manufacturing method of a mildewproof and antibacterial grip rubber for the exercise device, mainly by adding and mixing the mildewproof, the antibacterial and the aromatic agents to the PU [plutonium] resin diluting by the DMF solvent; then by spreading the mixture on the non-woven fabrics, and finally by immersing the grip rubber frozen and molded by the PU resin immersed in the water, thus to allow the mildewproof, the antibacterial and the aromatic agents to be absorbed and attached to the grip rubber to have the efficiency of being mildewproof and antibacterial.” ¶0006.

The Detailed Description, which is less than half a page (¶¶ 0009-0012), provides no additional clarification or enabling disclosure. There is no teaching of any elastomer—the word is not present in Pan, nor can such teaching be properly inferred from the generic reference to “grip rubber”, since the only possible elastomeric substance disclosed, “the PU resin” is explicitly defined as plutonium. There are no protocols, data or examples set forth in the specification. Applicant notes that Pan abandoned the application after a non-final rejection of the single claim, under §112, first paragraph, for lack of enablement, as well as a myriad of §112, second paragraph objections to the specification and claim rejections for lack of clarity. For example, the Examiner in Pan indicated that “...it is not clear [from the Pan specification] how one of ordinary skill would safely make or use plutonium on the rubber gripping part of exercise equipment”; “...it is not clear if one or all of those agents [mildewproof, antibacterial and aromatic] are solvents”; “it is not clear that the chemical formula of claim 1 is a solvent”; it is not

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clear whether the aromatic agents listed must also be the same 'chemical solvent' as the mildewproof and antibacterial agents"; etc. etc. (Office Action dated April 22, 2003, paper No. 7, in the Pan file history). Thus, because the teaching of Pan is so confusing and so utterly lacking in any enabling disclosure, Applicant contends that Pan fails to teach any of the elements of Applicant's claimed invention. Indeed, Applicant respectfully asserts that the cited Pan publication is at best an unsupported invitation to experiment.

Second, the total deficiency of Pan is not cured by 9-75480. A careful review of the cited 9-75480 reference reveals a nonwoven fabric tape containing an antimicrobial tree sap extract, wherein the tape is coated on one side with a film of polyurethane. The antimicrobial agent in 9-75480 is in the fabric. 9-75480 does not teach of an elastomer layer further comprising an antimicrobial agent. Thus, because of the above-discussed deficiencies in the Pan reference (i.e., no relevant teaching), the cited combination fails to disclose an elongated strip comprising an elastomer layer bonded to a textile layer, wherein said elastomer layer further comprises an inorganic antimicrobial agent. Accordingly, Applicant respectfully requests withdrawal of the §103 rejection of Claims 1, 2 and 6.

The Examiner also rejected Claims 3-5 under 103(a) as being obvious over Pan in view of 9-75480 in further view of Huang ('418). Applicant respectfully disagrees. For the reasons discussed above, Claims 1 and 2 are patentable over the combination of Pan and 9-75480. Claims 3 depends from Claim 2 and recites the additional limitation of polyurethane with closed pores that extend vertically. Claims 4-5 depend directly from Claim 1 and recite a textile layer comprising felt, and an adhesive layer and a protective quick-release tape, respectively. Although Applicant acknowledges that Huang teaches polyurethane with closed pores that extend vertically, a textile layer being felt, and an adhesive layer and a protective quick-release tape, Huang cannot render Claims 3-5 obvious because the respective base claims remain patentable over the primary references—and Huang does not cure the defect in combination of Pan and 9-75480. Accordingly, Applicant respectfully requests withdrawal of the §103(a) rejection of Claims 3-5 over Pan in view of 9-75480 in further view of Huang.

The Examiner also rejected claims 7-8 as obvious under §103(a) over Pan in view of 9-75480 in further view of 7-215811. Applicant respectfully disagrees. As detailed above Claim 6 is patentable over Pan in view of 9-75480. Claims 7 and 8 depend from Claim 6. The additional reference, 7-215811 teaches a method of imparting an antibacterial activity (against methicilin-

resistant *Staphylococcus aureus*) to a textile good or a polyurethane foam (and not to a composite material like Applicants elongated strip). The disclosed method involves two immersion processes: 1) the textile good or polyurethane foam is immersed in an aqueous solution containing one or more kinds of tin chloride or tin sulfate and at least one kind of hydrochloric or sulfuric acid, with subsequent aqueous washing; and 2) the treated material is immersed in a silver nitrate solution. Applicant respectfully asserts that the additional teaching of immersing textile goods or polyurethane foams in a solution of silver nitrate does not cure the deficiencies in the primary references. Accordingly, the cited combination fails to teach or suggest an elongated strip comprising an elastomer layer bonded to a textile layer, wherein said elastomer layer further comprises an inorganic antimicrobial agent, and wherein the inorganic antimicrobial agent is silver. Thus, Applicant requests withdrawal of the §103 rejection of Claims 7-8.

The Examiner also rejected Claims 9-11 and 13-15 as being obvious over Pan in view of 9-75480 and 7-215811 in further view of Yasui. Applicant respectfully traverses the rejection. For the reasons articulated above, Applicant's elongated strip comprising an elastomer layer bonded to a textile layer, wherein said elastomer layer further comprises an inorganic antimicrobial agent, and wherein the inorganic antimicrobial agent is silver is patentable over the combination of Pan, 9-75480 and 7-215811. Although Yasui may teach the narrower limitation of inorganic silver in a porous carrier, Claims 9-11 and 13-15 remain non-obvious over the combination of cited references because the broader base Claims 1, 2 and 6 are patentable over Pan in view of 9-75480 and 7-215811 for the reasons discussed above.

The Examiner also rejected Claim 12 over Pan in view of 9-75480 and 7-215811 in further view of Yasui and in further view of Applicant's disclosure. As already discussed, Pan and 9-75480 fail to teach or suggest an elongated strip comprising an elastomer layer bonded to a textile layer, wherein said elastomer layer further comprises an inorganic antimicrobial agent (as recited in Claim 1). Applicant respectfully points out that the additional references with disclosure directed to further specific limitations in dependent claims (in this case, dependent Claim 12) cannot render obvious the dependent claim, where the primary references fail to render the broader independent claim unpatentable. Thus, for the foregoing reasons, Applicant respectfully requests withdrawal of the rejection of Claim 12.

The Examiner also rejected Claims 16, 19 and 22 as obvious under §103(a) over Pan in view of Huang in further view of 7-215811. Applicant respectfully disagrees. Claims 16, 19 and

22 are independent claims that each recite an antimicrobial grip comprising a layer of polyurethane bonded to a layer of felt, said layers of polyurethane and felt being configured so as to reduce impact-related shock, wherein said polyurethane layer further comprises a silver-based inorganic antimicrobial agent dispersed therein. As detailed above, Pan teaches nothing and merely invites one of skill in the art to experiment with a rubber grip comprising a plutonium resin immersed in a tin-containing solvent [unclear whether the tin-containing solvent conveys a mildewproof, antibacterial, and/or aromatic effect], Huang teaches a grip comprising a layer of polyurethane bonded to a layer of felt, and 7-215811 teaches a method of imparting an antibacterial activity to a textile good or a polyurethane foam by immersing the material in a silver nitrate solution. Together the cited references fail to teach or suggest to one of skill in the art an antimicrobial grip comprising a layer of polyurethane bonded to a layer of felt, wherein the polyurethane layer further comprises a silver-based inorganic antimicrobial agent dispersed therein. Assuming that there would be any motivation to combine Huang with 7-215811 (which there is not), the references still fail to teach or suggest a grip in which a silver-based inorganic antimicrobial is dispersed within a polyurethane layer. 7-215811 teaches immersing a pre-formed and pre-treated material in a silver-nitrate solution—thereby purportedly coating the material with sufficient silver nitrate to provide an antimicrobial effect. Accordingly, Applicant respectfully requests withdrawal of the §103(a) rejection of Claims 16, 19 and 22 over Pan in view of Huang in further view of 7-215811.

The Examiner also rejected Claims 17-18, 20-21 and 23-24 as obvious over Pan in view of Huang and 7-215811 and further in view of Yasui. As discussed above, because the base Claims 16, 19 and 22 are patentable over Pan in view of Huang and 7-215811, the addition of Yasui cannot render the dependent claims unpatentable. Accordingly, Applicant respectfully requests withdrawal of the rejection of Claims 17-18, 20-21 and 23-24.

CONCLUSION

In view of the above Remarks, Applicant respectfully requests withdrawal of rejections of the claims and assert that the present application is in condition for allowance. Should there be any questions concerning this application, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number appearing below.


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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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